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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/582,321	08/25/2000	Thomas Garoff	0696-0171P	4182

2292 7590 09/10/2003

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

BROWN, JENNINE M

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 09/10/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/582,321

Applicant(s)

GAROFF ET AL.

Examiner

Jennine M. Brown

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1. 6) ☐ Other:

DETAILED ACTION

Claim Objections

Claim 1 is objected to because of the following informalities: The formula (I) uses $MgX_2 \cdot [R(OR')_n]_m$ but the defined R' value is R¹. Appropriate correction is required.

Claim Rejections - 35 USC § 101

Examiner has entered Applicants amendment, which obviates Examiners previous rejection by the deletion of these claims, therefore the rejection has been withdrawn.

Claim Rejections - 35 USC § 112

Examiner has entered Applicants amendment, which obviates Examiners previous rejection by the deletion of these claims, therefore the rejection has been withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 and 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Miya, et al. (US 5100849).

Miya, et al. teach $MgCl_2$ reacted with an alcohol (ROH) having 1-10 carbon atoms and then reacted with $TiCl_4$ and an electron donating phthalate compound (col. 3, l. 9 –

Art Unit: 1755

col. 4, l. 49; Examples 1-5, Comparative Examples 1-4). Because Applicants have directed the claims to a composition and not a product by process, Applicants have failed to provide substantive proof that the resultant composition does not read on the claimed composition. The patentability of a chemical product is independent of how it was made. *Ex parte Jungfer* 18 USPQ 2d 1796, 1800 (BPAI 1991); *Bristol-Myers Co. v. U.S. International Trade Commission* 15 USPQ 2d 1258 (Fed. Cir. 1989); *Ex parte Allen* 2 USPQ 2d 1425,1427 (BPAI 1987); *In re Thorpe* 227 USPQ 964 (Fed. Cir. 1985); *In re Dike* 157 USPQ 581 (CCPA 1968); *In re Stephens* 145 USPQ 656 (CCPA 1965); *In re Hoeksema* 141 USPQ 733,736 (CCPA 1964); *In re Smith* 74 USPQ 207 (CCPA 1947).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 10-14, 16-19, 21-22, 24-26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miya, et al. (US 5100849).

Miya, et al. teach MgCl_2 reacted with an alcohol (ROH) having 1-10 carbon atoms which is placed on a carrier then reacted with TiCl_4 and an electron donating phthalate compound (col. 3, l. 9 – col. 4, l. 49; Examples 1-5, Comparative Examples 1-4). Although Miya, et al. do not teach the specific process of making the catalyst claimed by Applicants, where $\text{Ph}(\text{COCl})_2$ is used as the chlorinating agent, it would have been obvious to one of ordinary skill in the art to substitute one chlorinating agent for another (i.e. the titanium halide for $\text{Ph}(\text{COCl})_2$) because it would form the electron donor of formula (I). Because the claimed process for making the complex is not identical, it would have been obvious to modify the reaction scheme of Miya, et al. to use a more reactive chlorinating agent like $\text{Ph}(\text{COCl})_2$ because fewer equivalents of the titanium tetrachloride would be required to react with the complex to create the catalyst

Art Unit: 1755

of the system. In the patent, two equivalents of the titanium tetrachloride complex are needed to make the activated complex while only one equivalent would be needed with the claimed process. Examiner assumes the cost of the chlorinating agent is much less costly than that of the transition metal complex and therefore would be preferable to the patented process.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

With Applicants submission of the Terminal Disclaimer to US 6420499, the previous rejection over US 6420499 has been withdrawn.

Claims 1-28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-50 of U.S. Patent No. 6200923. Although the conflicting claims are not identical, they are not patentably distinct from each other because US 6420499 teaches a catalyst and process of making said catalyst containing magnesium dihalide, an electron donor, halogen compound and

Art Unit: 1755

a titanium halide compound. The '499 reference teaches that the titanium halide compound preferably is TiCl_4 , that the electron donor compound preferably is o-phenylene $[\text{Ph}(\text{COOR})_2]$, and that the magnesium dichloride alcohol complex preferably is $\text{MgCl}_2(\text{ROH})_m$. The '499 reference teaches that X-ray diffraction pattern dominant peaks are present as well as mole ratios and ideal temperature ranges for the process of preparing the catalyst.

The patent does not specifically claim an IR spectrum showing the C=O Metal bond. Although the patent does not claim an IR spectrum showing the metal ligand binding characteristics, it would have been obvious to one of ordinary skill in the art to assume that the C=O bond would have an IR transition band which would be shifted from normal because of the electronic pull from the metal.

Relevant Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 5710229 teaches an alpha olefin catalyst composition and process comprising magnesium dichloride, a lower alcohol, a titanium tetrachloride and a phthalic acid ester where the composition is heated between 130° and 140° C.

US 5767215 teaches an alpha olefin catalyst composition and process comprising magnesium dichloride, a lower alcohol, a titanium tetrachloride and a phthalic acid ester, phenylene, where the composition is heated between 130° and 140° C.

US 5188999 teaches process and supported catalyst of magnesium dichloride, n-butyl alcohol, electron donor (esters, oxyacids, ethers, aldehydes) and TiCl_4 for olefin polymerization.

Response to Arguments

Applicant's arguments filed 06/12/2003 have been fully considered but they are not persuasive.

1. Regarding the rejection under 102(b), claims 1, 2 and 4-6 are drawn to a composition and not a product by process or a process of making, therefore Applicants have failed to provide substantive proof that the resultant composition does not read on the claimed composition. Miya, et al. discloses that magnesium dihalide is reacted with an alcohol (ROH) and then a halogenating compound (titanium tetrahalide compound) and therefore forms an electron donor complex, which conforms to complex I. That in turn is reacted with the phthalic acid ester complex. The patentability of a chemical product is independent of how it was made. Ex parte Jungfer 18 USPQ 2d 1796, 1800 (BPAI 1991); Bristol-Myers Co. v. U.S. International Trade Commission 15 USPQ 2d 1258 (Fed. Cir. 1989); Ex parte Allen 2 USPQ 2d 1425,1427 (BPAI 1987); In re Thorpe 227 USPQ 964 (Fed. Cir. 1985); In re Dike 157 USPQ 581 (CCPA 1968); In re Stephens 145 USPQ 656 (CCPA 1965); In re Hoeksema 141 USPQ 733,736 (CCPA 1964); In re Smith 74 USPQ 207 (CCPA 1947). In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., isolation and analytical validation of the

Art Unit: 1755

chemical composition and structure) are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

2. Examiner has withdrawn the rejection under 102(b) for claims 10-14, 16-19, 21, 22, 24-26 and 28 but submits that the process would have been obvious under 35 U.S.C. 103(a). Although the claimed process for making the complex is not identical, it would have been obvious to modify the reaction scheme of Miya, et al. to use a more reactive chlorinating agent like $\text{Ph}(\text{COCl})_2$ because fewer equivalents of the titanium tetrachloride would be required to react with the complex to create the catalyst of the system. In the patent, two equivalents of the titanium tetrachloride complex are needed to make the activated complex while only one equivalent would be needed with the claimed process. Examiner assumes the cost of the chlorinating agent is much less costly than that of the transition metal complex and therefore would be preferable to the patented process.

3. Regarding the 103(a) rejection over Kioka, Examiner agrees with Applicants argumentation that an alkyl acid halide would more likely be produced from the combination of reaction materials and therefore has withdrawn the rejection.

4. Regarding the obviousness double patenting rejection over US 6420499, the submission of the Terminal Disclaimer obviates the previous rejection. Examiner

Art Unit: 1755

maintains previous rejection with regard to US 6200923, which was not addressed by Applicants.


5. Examiner has enclosed the signed and initialed copy of PTO 1449 for Applicants Representative.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennine M. Brown whose telephone number is (703) 305-0435. The examiner can normally be reached on M-F 8:00 AM - 6:00 PM; first Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell can be reached on (703) 308-3823. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

jmb
August 27, 2003


Mark L. Bell
Supervisory Patent Examiner
Technology Center 1700